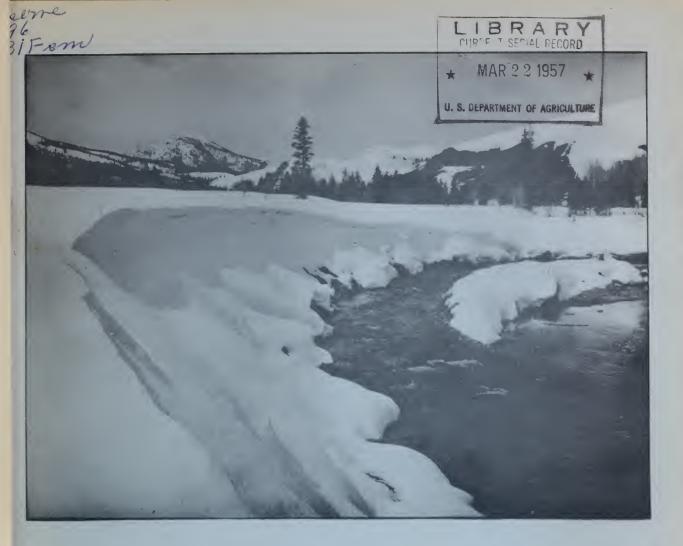
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Federal-State Cooperative
Snow Surveys and Water Supply Forecasts
for

# Platte and Arkansas Drainage Basin

SOIL CONSERVATION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
AND

COLORADO AGRICULTURAL EXPERIMENT STATION

Data included in this report were obtained by the agencies named above in cooperation with the U.S. Forest Service, National Park Service, State Engineers of Colorado, Wyoming and New Mexico and other Federal, State and local organizations.

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# UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

# TO RECIPIENTS OF COOPERATIVE SNOW SURVEY AND WATER SUPPLY FORECAST REPORTS:

Forecasts by U. S. Weather Bureau of total annual streamflow October-September, inclusive, at more than 300 gaging stations are issued monthly January through May in the publication WATER SUPPLY FORECASTS FOR THE WESTERN UNITED STATES.

Weather Bureau forecasts of runoff presented in that bulletin are computed from procedures based on mathematical analysis of the relation between precipitation and runoff.

The Weather Bureau bulletins may be secured by writing to:

Hydrologist in Charge River Forecast Center U. S. Weather Bureau 712 Federal Office Building Kansas City 6, Missouri

For current information on local river and flood conditions, reference should be made to the appropriate River District Office listed below:

Climatologist.................North Platte and South
Weather Bureau Office Plate Rivers, and
Box 1079 tributaries, above
Denver 1, Colo. North Platte, Nebr.

Meterologist in Charge......Arkansas River and Weather Bureau Airport Station tributaries in Municipal Airport Colorado Pueblo, Colorado.

Platte and Arkansas Rivers

## FEDERAL-STATE COOPERATIVE

#### SNOW SURVEYS AND WATER SUPPLY FORECASTS

for

### PLATTE-ARKANSAS RIVERS BASIN

Issued

February 10, 1955

Report Prepared By
Homer J. Stockwell, Snow Survey Leader
and
Jack N. Washichek, Assistant Snow Survey Leader

Soil Conservation Service and Colorado Agricultural Experiment Station Fort Collins, Colorado

Issued By

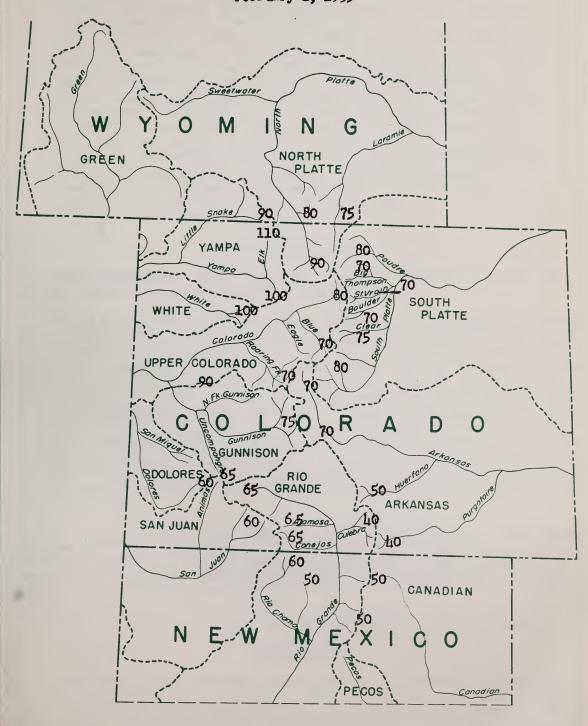
Kenneth W. Chalmers State Conservationist Soil Conservation Service Sherman S. Wheeler
Director
Colorado Agricultural Experiment Station

General Series Paper No. 596 Colorado Agricultural Experiment Station

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WATER CONTENT OF SNOW ON THE WATERSHEDS OF PLATTE, ARKANSAS, UPPER COLORADO AND RIO GRANDE BASINS BASED ON SNOW SURVEYS MADE APPROXIMATELY FIRST DAY OF MONTH

In Percent of Normal February 1, 1955





# WATER SUPPLY OUTLOOK PLATTE-ARKANSAS DRAINAGE BASIN February 1, 1955

The present outlook for irrigation water supply over the Platte and Arkansas Drainage Basins is fair to poor. Seasonal snow accumulation in mountain areas range from 60 to 90 percent of normal. Assuming that snowfall will be near average for the remainder of the winter, runoff is expected to be about three-quarters of normal for the 1955 irrigation season. However, streamflow is not the whole picture. In estimating the water supply, the extreme shortage in reservoir storage must be considered. The deficiency in storage from the past ten-year average is estimated at three-quarters of a million acre-feet for these two basins in Colorado and Wyoming. This is almost equal to the average annual flow of all South Platte tributaries as they emerge from the mountains. Carry-over storage is a major factor this year on all watersheds. Soil in irrigated areas is dry and streamflow is below average.

## NORTH PLATTE RIVER

On the Sweetwater River, snow cover is about one-half of normal. Runoff next summer will be substantially below average.

On the North Platte Watershed there is considerable variation in seasonal snow accumulation to February 1. There is about 115 percent of normal snow cover along the Continental Divide in Colorado. This decreases rapidly in Wyoming and along the Iaramie-North Platte Divide. On the average, February 1 snow surveys measured about 80 percent of normal. This is slightly better than on February 1, 1954. Inflow to Seminoe Reservoir is most likely to be about three-quarters of normal this year. Storage in the four major reservoirs on the North Platte in Wyoming now totals 950,000 acre-feet as compared to 1,275,000 acre-feet a year ago. Most of this water is assigned to the Alcova Project with very little available for the irrigated areas of eastern Wyoming and western Nebraska. Irrigation water supplies in this area will be dependent on 1955 summer flows supplemented by rainfall. Shortage of irrigation water may be expected.

On the Laramie River Watershed, the water supply outlook is less favorable than for the North Platte. Snow cover is about 70 percent of normal. Wheatland Reservoir is almost empty as compared with a usual carry-over of about 35,000 acre-feet. The watershed needs a lot of additional snow and rainfall within the next few months.

Soils in irrigated areas are dry and streamflow is below average.

#### SOUTH PLATTE

Snow cover in the mountains varies from 60 to 90 percent of normal on the South Platte and its tributaries. This is a similar condition to February 1, 1954. It may be expected that streamflow this year will be above that for the 1954 season. Snow water content continued to be short during the 1954 season

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resulting in streamflow which was among the lowest of record. As an early season estimate, streamflow will most probably be near three-quarters of normal.

Another year of short water supply is almost certain to occur. There is only about one chance in ten that total water supply next year will be above average, Even if natural streamflow is well above 1954, the extreme shortage in carry-over storage, as compared to 1954 and average, points to a repetition of water shortages in 1955. Twenty-eight large municipal and irrigation reservoirs show a total storage of 195,000 acre-feet as compared to 355,000 on February 1, 1954 and nearly one-half million acre-feet for the past ten-year average. Storage is only 20 percent of the mean and one-half of a year ago. In Denver's four major reservoirs there is now stored 66,000 acre-feet as compared with 136,000 a year ago and 170,000 for a ten-year average. With less than normal streamflow expected next year, the concern for water supply for the City of Denver is well founded.

The above figures do not include reservoirs on the Colorado Big-Thompson Project. This provided about half of the water supply for the area served by Northern Colorado Conservancy District in 1954. It will be difficult to provide as much water in 1955 as in 1954 from this source. If it is provided, the project will be out of water for 1956.

Soils in irrigated districts along the South Platte remain dry. Streamflow in the South Platte below Kersey is below average. This reduces the rate of filling of reservoirs near Fort Morgan and Sterling.

#### ARKANSAS

As of February 1, there is another year of short water supply in view for the irrigated section along the Arkansas River. Reservoir storage is about the same as a year ago with almost no water in storage. Soil moisture conditions are fair to poor. Snow cover in the mountains is only 70 percent of normal on the Upper Arkansas above Salida and ranges down to 25 to 40 percent on the headwaters of the Huerfano and Purgatoire rivers. If snow-fall for the remainder of the season is near average summer streamflow will be about three-quarters of normal, slightly more than for the 1954 season. Water users should make plans to reduce their requirements for this next season. Unless very heavy snow and rainfall comes during the next three months, a water year similar to 1954 may be expected.

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# STATUS OF RESERVOIR STORAGE PLATTE-ARKANSAS BASIN February 1, 1955

| -      |         |       |                 |         |        |          | -                     |              |
|--------|---------|-------|-----------------|---------|--------|----------|-----------------------|--------------|
| BASTM  | AND ST  | PEAM  | RESERVOIR       | USABIE  | THOUSA | NDS ACRE | FEET IN :<br>bruary l | STORAGE      |
| DAULIN | WIND O  | TUTAL |                 | (THOUS. |        | ADOUG P  | or dary r             | 10-year Avg. |
|        |         |       |                 | A.F.)   | 1955   | 1954     | 1953                  | 1943-1952    |
|        |         | -     |                 |         |        |          |                       |              |
| MISSO  | URI RIV | ÆR    |                 |         |        |          |                       |              |
| Poudre | e River | •     | Windsor         | 18.6    | 2.7    | 2.9      | 7.7                   | 9.0          |
| 11     | Ħ       |       | Cache la Poudre | 9.5     | 3.6    | 4.9      | 5.5                   | 5.7          |
| 11     | 11      |       | Fossil Creek    | 11.6    | 2.3    | 4.1      | 6.1                   | 6.6          |
| 17     | 11      |       | Terry Lake      | 8,2     | 2.1    | 401      | 4.0                   | 4.0          |
| 11     | 11      |       | Halligan        | 6.4     | 1.7    | 1.4      | 2.1                   | 1.6          |
| ***    | n       |       | Chamber's Lake  | 8.8     | 1.0    | 0.9      | 0.6                   | 2.1          |
| 11     | 11      |       | Cobb Lake       | 34.3    | 0.0    | 7.0      | 11.2                  | 6.5          |
| 11     | 11      |       | Black Hollow    | 8.0     | 0.9    | 3.4      | 4.3                   | 3.7          |
| Big Th | hompsor | River | Lake Loveland   | 14.3    | 5.2    | 7.6      | 7.0                   | 5.4          |
| 11     | tt      | 11    | Boyd Lake       | 44.0    | 0.0    | 8.5      | 16.8                  | 22.3         |
| 11     | 11      | 11    | Lone Tree       | 9.2     | 5.8    | 7.1      | 6.8                   | 5.6          |
| 11     | tt      | 11    | Mariano         | 5.4     | 0.3    | 2.2      | 2.2                   | 1.5          |
|        | cain Ri |       | Union           | 12.7    | 1.0    | 6.1      | 8.3                   | 8.0          |
| South  | Platte  | River | Eleven Mile     | 81.9    | 17.3   | 82.0     | 82 30                 | 80,9         |
| 11     | 11      | n     | Cheeseman       | 79.0    | 25.0   | 27.8     | 54.0                  | 56.5         |
| 11     | 11      | O O   | Marston         | 18.9    | 13.6   | 15.6     | 15.1                  | 14.0         |
| 11     | 11      | 11    | Barr Lake       | 32.2    | 9.5    | 12.9     | 18.0                  | 20.1         |
| 11     | 11      | 11    | Milton          | 24.4    | 0.0    | 3.1      | 11.6                  | 11.5         |
| 11     | 11      | n     | Standley        | 18.5    | 2.6    | 6.9      | 11.0                  | 8,9          |
| H      | 11      | 11    | Marshall        | 10.3    | 0,0    | 8.0      | 1.5                   | 1.8          |
| 11     | ft.     | II.   | Antero          | 33.0    | 10.2   | 10.2     | 10.2                  | 18.1         |
| 11     | 11      | 11    | Horse Creek     | 20.6    | 0.0    | 1.9      | 15.2                  | 8.9          |
| 11     | 11      | 11    | Riverside       | 57.5    | 17.6   | 36.3     | 44.4                  | 42.7         |
| 11     | 11      | 11    | Empire          | 37.7    | 0.0    | 20.8     | 24.2                  | 24.8         |
| u      | t1      | 11    | Jackson Lake    | 35.4    | 22.1   | 29.6     | 25.3                  | 27.5         |
| 11     | 11      | 21    | Prewitt         | 32,8    | 4.9    | 9-4      | 16.8                  | 22.8         |
| 13     | 11      | Ħ     | Point of Rocks  | 70.0    | 23.1   | 37.2     | 12.7                  | 49.9         |
| 11     | 11      | ##    | Julesburg       | 28.2    | 20.4   | 19.8     | 21.0                  | 20.3         |

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|  | RESE  | RVOIR STO  |  |   |  |   |
|--|---|--|--|---|--|---|
| BASIN AND STREAM   | RESERVOIR   | USABLE CAPACITY  | 1  |   | ACRE FEET<br>ut Februa   | IN STORAGE  |
| DASIN AND STREAM   | TESSIT OLIC   | (Thous.  | 1955   | 1954  | 1953   | 10-year Avg.<br>  1943-1952   |
| North Platte River  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " "  " " " "  " " " "  " " " "  " " " " "  " " " " "  " " " " "  " " " " " "  " " " " " " " "  " | Kingsley Minatare Alcova Seminoe Guernsey Pathfinder Sutherland Wheatland   | 2180.0<br>60.8<br>190.0<br>1025.0<br>46.0<br>1045.5<br>185.0<br>70.4   | 1120.8<br>19.9<br>171.5<br>328.4<br>16.8<br>425.0<br>42.6<br>1.2 | 147.0<br>23.3<br>166.9<br>251.6<br>41.9<br>813.9<br>50.9<br>7.2 | 1699.0<br>23.9<br>155.3<br>658.3<br>41.6<br>736.4<br>63.0<br>24.0            | 1275.5<br>23.8<br>94.9<br>474.4<br>35.5<br>451.3<br>50.7<br>35.4                |
| ARKANSAS RIVER Arkansas River  """ """ """ """ """ """ """ """ """   | Twin Lakes Sugar Loaf Clear Creek Meredith Horse Creek Adobe Creek Cucharas Two Buttes John Martin Great Plains Model | 57.9<br>17.4<br>11.4<br>41.9<br>26.9<br>61.6<br>40.9<br>655.0<br>150.0 | 13.5<br>5.1<br>1.2<br>0.0<br>0.0<br>0.0<br>0.0<br>2.8<br>0.0     | 8.1<br>13.7<br>12.9<br>0.0<br>0.0<br>0.0<br>0.0<br>15.6<br>0.0  | 25.2<br>5.4<br>1.8<br>0.0<br>0.0<br>0.0<br>0.0<br>11.5<br>14.2<br>7.3<br>1.1 | 26.4<br>8.6<br>6.7<br>18.8<br>9.5<br>30.0<br>5.7<br>11.1<br>59.4<br>66.3<br>2.3 |
| COLORADO-BIG THOMPS Blue River Colorado River Poudre River Thompson River  | Green Mt. Granby Horsetcoth Carter Lake   | 146.9<br>467.5<br>143.5<br>112.4                                       | 46.6<br>204.2<br>66.0<br>45.9                                    | 85.5<br>413.8<br>104.6<br>0.0                                   | 108.1<br>447.3<br>102.7  | 73.0<br>*<br>*  |

<sup>\*</sup>Some for shorter periods

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| ·             | 0.5                         | 9.0  | · •                              | 7.5                                     | £ (Ab)(=)  |       | 19      | i              |
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| 4.6           | 5 s.d. Ž                    | •  | 7.4                              | Test                                    | 100  |       | 7 }     | 111            |
|               | 2.12                        | **************************************   | 1.3                              |   | attacks miles  |       | ş1      | 1              |
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|               |                             |  |                                  | to the state of                         | 404  |       |         |                |

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SUMMARY OF FERRUARY 1 SNOW SURVEYS AND COMPARISON OF DATA WITH THAT OF TREVIOUS YEARS BY WATERSHEDS

| WATERSHEDS                              | Snow           | Snow Wa                                  | ter Cor                         | Snow Water Content in         | Inches                  | No. of            | Snow                                     | 1955 Water    | 1955 Water Content in percent of |
|---|----------------|--|---------------------------------|-------------------------------|-------------------------|-------------------|--|---------------|----------------------------------|
|   | 1955<br>Inches |  | 1954                            | 1953                          | 17 yr.<br>Avg.*         | in<br>Average     | 1955<br>Percent                          | 1954          | 17 yr. avg.*                     |
| PLATTE RIVER<br>Sweetwater              | 23             | بر<br>0°,0                               | 10.2                            | బ<br><i>గ</i> ి               | 9.6                     | 2                 | 22                                       | 49            | 52                               |
| North Platte River<br>Taramie River     | 36.            | ۲- ۲- ۲- ۲- ۲- ۲- ۲- ۲- ۲- ۲- ۲- ۲- ۲- ۲ | 7,2                             | 0,8                           | 9.9                     | 213               | 22                                       | 107           | 78                               |
| South Platte River**                    | 16             | 7,7                                      | W. Y.                           | N N                           | 3.8                     | 7/2               | 19                                       | 84<br>درر     | 8 8 8<br><b>3</b> 2 2            |
| Big Thompson River                      | 22 61          | 100                                      | 000                             | , 7, w                        | - Ф л<br>1 - 1 л        | ~ <del></del> ~   | † # F                                    | 22            | ) か <u>~</u><br>! か              |
| Boulder Creek Clear Creek               | 17             | 0.<br>0.<br>0.<br>0.                     | หห<br>เ <sub></sub> ่<br>เ<br>เ | 8 1.<br>8 1.                  | 8 27                    | アシュ               | 55 57 57 57 57 57 57 57 57 57 57 57 57 5 | 74<br>107     | 71 64                            |
| ARKANSAS RIVER                          | 21             | 404                                      | T.9                             | 7.0                           | 7.1                     | 7                 | 21                                       | 72            | 62                               |
| COLORADO-BIG THOMPSON Colorado River*** | 33             | 7-1                                      | 7.4                             | 7.7                           | 4.6                     | 7 ~               | 22                                       | 001<br>711    | 76                               |
| Frazer River<br>Blue River              | 2888           | なる。                                      | N W<br>D H W                    | いない                           | 0 0 0<br>0 0 0<br>0 0 0 | ンサト               | 21                                       | 125           | 22.99                            |
| *Some for shorter periods               | iods **A       | bove                                     | Denver                          | ****bove                      | e Granby                | ,                 |  |               |                                  |
|   |                | で<br>形<br>用<br>に                         | CIPI                            | T V. T                        | HOH                     | D.A T A           | A*                                       |               |                                  |
| WATERSHED                               | State          |  | Prec<br>Oct                     | Precipitation<br>October 1 to |                         | Departure<br>from |  | Precipitation | Departure<br>from                |
|   |                |  | Jar                             | January 31                    |                         | Normal            | Jan                                      | January       | Normal                           |
| North Platte                            |                |  |                                 | Inches                        |                         | Inches            | 년  | hes<br>77     | Inches                           |
| atte                                    | Wyoming        |  |                                 | 1.80                          |                         | 0.89              |  | 0.15          | 10,29                            |
| Arkansas                                | Colorado       |  |                                 | 1.90                          |                         | -1.09             | 0  | 0.21          | -0°42                            |

\*Average selected high elevation stations.

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PLATTE-ARKANSAS RIVERS SNOW SURVEYS February 1. 1955

|                            |             | F     | ebruary |            |            |            |        |          |                                |
|----------------------------|-------------|-------|---------|------------|------------|------------|--------|----------|--------------------------------|
|                            |             |       |         |            | now Cover  |            |        |          | uder-detect to the continue of |
| Prainage Basin             |             |       |         | 1955       |            |            | ast Re |          | erik etamikun -droibeak.vd     |
| and                        | Number      | Elevo |         |            | Water      | Water      | Conte  | nt (In.) |                                |
| Snow Course                |             |       | 01      |            | Content    |            |        |          | of                             |
|                            |             |       | Survey  | (In.)      | (In.)      | 1954       | 1953   | Average  | Record                         |
|                            |             |       |         |            |            |            |        |          |                                |
|                            |             |       | PLA'    | ITE RI     | VER        |            |        |          |                                |
| SWEETWATER RIVER           | 0.01        | 0000  | 0 /7    | 0.1        | 1 ~        | 0.5        | 0 0    | 0.6      | 7.0                            |
| Grannier Meadows           | 8GL         | 9000  |         | 24         | 4.5        | 9.7        | 8.2    | 9.6      | 13                             |
| South Pass*                | 8G3         | 9000  | 2/1     | 22         | 5.5        | 10.6       | 8,8    | 9.5      | 13                             |
| NO DIAMME DITED            |             |       |         |            |            |            |        |          |                                |
| NO. PLATTE RIVER           | 5J1         | 10300 | 2/5     |            | 0.7        | 8 0        | 8.5    | 12.0     | 16                             |
| Cameron Pass (a) Park View | 6J2         |       | 1/31    | 33<br>20   | 9•7<br>3•3 | 8.9<br>3.8 | 5,3    | 5.7      | 17                             |
| Columbine Lodge            | 6J3         |       | 1/27    | 61         | 13.9       | 8.9        | 15.3   | 14.0     |                                |
| Willow Cr. Pass*           | 6J5         |       | 1/31    | 27         | 5.6        | 5.2        | 6.1    | 7.4      | 19                             |
| Northgate                  | 6J7         |       | 1/31    | 16         | 2.3        | 2.0        | 2.5    | 3.6      | 15<br>5<br>17                  |
| Bottle Creek               | 6н8         |       | 1/26    | 30         | 6.2        | 6.9        | 6.6    | 8.1      | 17                             |
| Webber Spring              | 6н9         | 9000  | 1/26    | <b>3</b> 8 | 8.1        | 7.8        | 8,2    | 10.5     | 17                             |
| Old Battle                 | 6н10        | 9800  | 1/26    | 61         | 13.5       | 12.5       | 13.7   | 18.4     | 17                             |
| N. French Creek            | 6HL         | 10200 | 1/31    | 57         | 12.8       | 14.8       | 12.2   | 16.3     | 17                             |
| N.Barrett Creek            | 6H5         | 9/100 | 1/31    | 48         | 8.9        | 8.7        | 9.0    | 11.4     | 17                             |
| Ryan Park                  | 6н6         | 81,00 | 1/31    | 34         | 6.4        | 4.4        | 4.2    | 6.5      | 17                             |
| Albany                     | 6H11        |       | 1/29    | 30         | 5.4        | 6.0        | 8.0    | 9.8      | 6                              |
| La Bonte                   | 5G2         | 3450  | 1/26    | 19         | 3.8        | 3.4        | 4.6    | 4.5      | 6                              |
| Boxelder                   | 5 <b>G1</b> | 9000  |         | NS         | NS         | 3.1        | 4.1    | 2.7      | 5                              |
|                            |             |       |         |            |            |            |        |          |                                |
| LARANTE RIVER              |             |       |         |            |            |            |        |          |                                |
| Deadman Hill (a)           | 5J6         | 10200 |         | 24         | 5.7        | 6.1        | 5.0    | 7.0      | 11                             |
| Roach (a)                  | 5J12        | 9800  |         | 35         | 8.2        | 9.5        |        | 10.6     | 13                             |
| Brooklyn Lake              | 6H1         | 10200 |         | 41         | 11.3       | 8.6        | 12.8   | 14.4     | 17.                            |
| Fox Park                   | 6H12        |       | 1/31    | 18         | 3.4        | 1.7        | 4.4    | 7.2      | 18                             |
| Pole Mtn.#2*               | 5H1         |       | 1/28    | 19         | 2.9        | 1.8        | 20 4   | 2.9      | 18                             |
| Libby Lodge                | 6н3         |       | 1/31    | 16         | 405        | 3.6        | 6.7    | 6.1      | 17                             |
| Hairpin Turn               | 6H2         |       | 1/31    | 19         | 4.5        | 3.7        | 6.6    | 6.8      | 17                             |
| Albany                     | 6HL1        | 9400  | 1/29    | 30         | 5.4        | 6.0        | 8.0    | 9.8      | 6                              |

\*On adjacent drainage
(a) Air observed
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PLATTE-ARKANSAS RIVERS SNOW SURVEYS February 1, 1955

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|---|--|---|-----------------------------|---------------------------------------|--|--|--|---|---------------------------------|
|   |  |   | <del>}</del>                |                                       | ow Cover                               | Measu:   |  |   |                                 |
| Drainage Basin  |  |   |                             | 1955                                  |  |  |  | Record  | <del></del>                     |
| and   | Number   | Elev.   | Date                        | Snow                                  | Water                                  | Water  | Conte  | nt (In.)  | Years                           |
| Snow Course   |  |   | or<br>Survey                | Depth (In.)                           | Content (In.)                          | 1954   | 1955   | Average   | of<br>Record                    |
| POUDRE RIVER Cameron Pass (a) Chambers Lake Big South Deadman Hill(a) Lake Irene* Red Feather Lost Lake | 5J1<br>5J2<br>5J3<br>5J6<br>5J10<br>5J20<br>5J23 | 8600<br>10200<br>10600<br>9000                    | 1/29<br>1/29<br>1/29        | 33<br>22<br>8<br>24<br>43<br>18<br>26 | 9.7<br>5.7<br>5.7<br>8.9<br>5.3<br>6.0 | 8.9<br>3.5<br>0.1<br>6.1<br>11.5<br>3.8<br>4.4 | 8.5<br>4.0<br>1.6<br>5.0<br>10.5<br>3.3<br>5.0 | 12.0<br>4.9<br>1.6<br>7.0<br>13.1<br>5.7<br>7.2 | 16<br>16<br>16<br>11<br>16<br>6 |
| BIG THOMPSON RIVE<br>Lake Irene*<br>Hidden Valley<br>Deer Ridge<br>Longs Peak                           | R<br>5J10<br>5J13<br>5J17<br>5J22                |   | 1/30<br>1/30                | 43<br>19<br>9<br>15                   | 8.9<br>4.2<br>2.2<br>3.0               | 11.5<br>5.8<br>1.8<br>5.0                      | 10.5<br>5.4<br>2.6<br>5.1                      | 13.1<br>7.0<br>4.3<br>9.2                       | 16<br>11,<br>6<br>4             |
| ST. VRAIN RIVER<br>Wild Basin<br>Copeland Lake<br>Ward  | 5J5<br>5J18<br>5J21                              | 10000<br>8600<br>9500                             | 2/1                         | 21<br>6<br>8                          | 4.5<br>1.5<br>1.6                      | 5.5<br>1.7<br>4.5                              | 6.3<br>2.6<br>2.8                              | 8.0<br>4.6<br>4.0                               | 17<br>6<br>5                    |
| BOULDER CREEK E.Port.Moffat T. University Camp Moffat Boulder Falls                                     | 5K1<br>5J8<br>5K12<br>5J25                       | 9400<br>10300<br>9400<br>10000                    | 1/30<br>2/1                 | 9<br>29<br>14<br>21                   | 2.2<br>6.9<br>3.7<br>5.6               | 1.9<br>13.3<br>2.1<br>8.8                      | 3.0<br>13.3<br>5.8<br>9.0                      | 2.8<br>11.8<br>7.1                              | 16<br>16<br>5<br>3              |
| CLEAR CREEK Loveland Pass Grizzly Peak* Empire Berthoud Falls Clear Creek                               | 5K5<br>5K9<br>5K10<br>5K13<br>5K17               |   | 1/26<br>1/29<br>1/29        | 32<br>30<br>17<br>28<br>34            | 7.0<br>7.4<br>3.4<br>6.3<br>8.2        | 6.6<br>7.1<br>3.1<br>5.6<br>6.5                | 9.7<br>9.9<br>3.4<br>9.2<br>12.0               | 8,2<br>10.8<br>4.5<br>10.1                      | 15<br>13<br>6<br>4<br>3         |
| SOUTH PLATTE RIVE<br>Hoosier Pass<br>Fairplay<br>Jefferson Cr.<br>Geneva Park<br>Antero                 | R (Abov<br>6K1<br>6K2<br>5K8<br>5K11<br>5I1      | e Denv<br>11400<br>10000<br>10100<br>9750<br>9200 | 1/31<br>1/31<br>1/31<br>2/2 | 23<br>7<br>24<br>9                    | 4.5<br>1.1<br>4.4<br>2.9<br>2.5        | 6.6<br>0.0<br>5.8<br>3.1<br>3.2                | 6.9<br>0.0<br>4.5<br>2.6<br>1.5                | 6.6<br>0.9<br>4.9<br>4.1<br>2.6                 | 16<br>16<br>15<br>6<br>6        |

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PLATTE-ARKANSAS RIVERS SNOW SURVEYS

February 1, 1955

|   |   |                                | T. GOT U                                     | Snor   | Cover M   | [02CIINO                                      | monts                                   |  |  |
|---|---|--------------------------------|--|--|---|---|---|--|--|
| Drainage Basin  |   | T                              |  | 1955   | O ver i   |   | st Rec                                  | ond  |  |
| and   | Number  | Flow.                          | Date   |  | Water   |   |   | nt (Inc)                                       | Years                                  |
| Snow Course   | Trainees  | BIOVE                          | of<br>Survey                                 | Depth  | Content   | 1954  |   | Average  | of                                     |
| ARKANSAS RIVER Tennessee Pass Twin Lakes T. La Veta Pass* L-Mile Park Fremont Pass Monarch Pass St. Elmo (a) Timberline | 6K2<br>6K3<br>5M1<br>6K7<br>6K8<br>6L1<br>6L5<br>6K11 | 9700<br>11400<br>10500         | 1/29<br>2/1<br>2/1<br>1/28<br>2/1<br>1/30    | 19<br>21<br>14<br>11<br>33<br>31<br>20<br>NS | 3.2<br>4.8<br>3.4<br>1.7<br>6.5<br>7.0<br>4.0<br>NS | 4.9<br>6.1<br>2.3                             | 5.4<br>6.7<br>6.9<br>1.8<br>9.5<br>10.8 | 5.2<br>6.8<br>5.7<br>3.0<br>9.2<br>10.4<br>9.7 | 19<br>17<br>15<br>15<br>19<br>14<br>55 |
|   | С   | OLORADO                        | O-BTG T                                      | HOMPSOI                                      | N PROJECT   |   |   |  |  |
| COLORADO RIVER** Cameron Pass*(a) Phantom Valley Lake Irene Grand Lake  | 5J1<br>5J14<br>5J10<br>5J19                           | 10300<br>9300<br>10600         | 2/5<br>1/28<br>1/29<br>1/28                  | 33   | 9.7<br>5.2<br>8.9<br>4.7                            | 8.9<br>4.3<br>11.5<br>3.5                     | 8.5<br>6.7<br>10.5<br>4.9               | 12.0<br>6.1<br>13.1<br>6.5                     | 16<br>19<br>16<br>6                    |
| WILLOW CREEK Park View* Willow Creek Granby   | 6J2<br>6J5<br>5J16                                    | 9500                           | 1/31<br>1/31<br>1/30                         | 20<br>27<br>19                               | 3.3<br>5.6<br>4.3                                   | 3.8<br>5.2<br>2.5                             | 5.3<br>6.1<br>4.5                       | 5.7<br>7.4<br>5.0                              | 17<br>15<br>6                          |
| FRAZER RIVER Berthoud Pass Arrow Berthoud Summit Frazer View  | 5K3<br>5K6<br>5K14<br>5K15                            | 9900<br>11300                  | 2/1<br>2/1<br>1/29<br>1/30                   | 35<br>21<br>40<br>24                         | 6.6<br>4.7<br>9.0<br>5.4                            | 5.7<br>3.5<br>7.1<br>4.0                      | 5.1<br>8.6                              | 9.0<br>5.5<br>11.9<br>8.4                      | 18<br>16<br>4<br>4                     |
| BLUE RIVER Hoosier Pass Fremont Pass Shrine Pass Grizzly Peak Frisco Snake River Summit Ranch                           | 6K1<br>6K8<br>6K9<br>5K9<br>6K13<br>5K16<br>6K14      | 10500<br>11250<br>9300<br>9700 | 1/31<br>1/29<br>1/29<br>1/26<br>1/28<br>1/28 | 23<br>36<br>36<br>30<br>19<br>20<br>31       | 4.5<br>6.5<br>6.4<br>7.4<br>3.3<br>3.2<br>6.3       | 6.6<br>8.4<br>7.8<br>7.1<br>4.3<br>4.5<br>2.3 | 9.5<br>9.8<br>9.9<br>4.3<br>6.7         | 9.2<br>10.3<br>10.8<br>6.6<br>7.6              | 16<br>19<br>13<br>13<br>4<br>4         |

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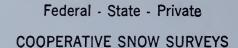
## LIST AND LOCATION OF SNOW COURSES Platte, Arkansas, Colorade and Rio Grande Drainages

| Noo          | State | Name                             | Sec.       | Twp.       | Rge.       | Elev.         | No.              | State | Name                      | Sec.    | Twp.       | Rge.       | Elev.         |
|--------------|-------|----------------------------------|------------|------------|------------|---------------|------------------|-------|---------------------------|---------|------------|------------|---------------|
|              |       | Cheyenne                         |            |            |            |               |                  |       | Upper Colorado            |         |            |            |               |
| SEI          | SD    | Upper Spearfish                  | 21         | 3N         | 1E         | 6500          | 5J 4             | C     | Phantom Valley            | 7       | 5N         | 7 5W       | 9300          |
| 022          |       |                                  |            |            |            |               | 5K3              | C     | Berthoud Pass             | 35      | 2S         | 75W        | 9700          |
|              |       | North Platte                     |            |            |            |               | 5K4              | C     | M.F. Camp Ground          | 16      | 3S         | 77W        | 9000          |
| 6J2          | С     | Park View                        | 24         | 5N         | 78W        | 9200          | 6K5              | C     | Fiddler Gulch             | 1       | 88         | 80W        | 11000         |
|              | Č     | Columbine                        | 21         | 5N         | 82W        | 9300          | 5J 7             | C     | Lulu                      | 25      | 6N         | 76W        | 10200         |
| 6J3          | C     |                                  | 7          | 11N        | 79W        | 8500          | 6J 5             | С     | Willow Creek Pass         | 1       | 4N         | 78W        | 9500          |
| 6J7          | w     | Northgate /<br>No. French Creek  | 27         | 16N        | 80W        | 10200         | 5J9              | С     | N. Inlet Grand Lake       | 26      | 4N         | 7 5W       | 9000          |
| 6H4<br>6H5   | W     | No. Barrett Creek                | 30         | 16N        | 80W        | 9400          | 5J10             | С     | Lake Irene                | 8       | 5N         | 7 5W       | 10600         |
|              | W     | Ryan Park                        | 34         | 16N        | 81W        | 8400          | 5K6              | С     | Arrow                     | 34      | 18         | 75W        | 9900          |
| 6H6<br>6H7   | W     | Spring Creek                     | 32         | 15N        | 85W        | 9000          | 5K7              | С     | Lapland                   | 16      | 2S         | 76W        | 9500          |
| 6H8          | W     | Bottle Creek                     | 24         | 14N        | 8.5W       | 8200          | 6K8              | C     | Fremont Pass              | 2       | 8.5        | 76W        | 11400         |
| 6H9          | W     | Webber Springs                   | 27         | 14N        | 8.5W       | 9000          | 6J 6             | C     | Lynx Pass                 | 27      | 2N         | 88W        | 9100          |
|              | W     | Old Battle                       | 29         | 14N        | 8.5W       | 9800          | 6K9              | C     | Shrine Pass               | 15      | 6S         | 7 SW       | 10500         |
| 6H10         | W     | Albany                           | 18         | 14N        | 78W        | 9400          | 5K9              | C     | Grizzly Peak              | 2       | 5S         | 76W        | 11250         |
| 6H13         | W     | Pearl                            | 18         | 12N        | 82W        | 8900          | 5K10             | С     | Glen-Mar Ranch            | 31      | 25         | 77W        | 8850          |
| 01110        | **    | Tearl                            | 10         | 1211       | 0211       | 0000          | 5J14             | C     | Monarch Lake              | 30      | 2N         | 74W        | 8500          |
|              |       | Laramie                          |            |            |            |               | 5J16             | C     | Granby                    | 11      | 2N         | 77W        | 8700          |
| 6170         | С     | Roach                            | 5          | 10N        | 77W        | 9800          | 5J19             | C     | Grand Lake                | 36      | 4N         | 75W        | 8600          |
| 5J12<br>5J15 | c     |                                  | 35         | 10N        | 76W        | 9100          | 5K14             | C     | Berthoud Summit           | 10      | 25         | 757        | 11300         |
| 6H1          | W     | McIntyre<br>Brooklyn Lake        | 11         | 16N        | 78W        | 10200         | 5K15             | C     | Frazer View               | 34      | 2.5        | 75W        | 10600         |
| 6H2          | W     | Hairpin Turn                     | 24         | 16N        | 79W        | 9500          | 6J11             | C     | Gore Pass                 | 2       | 1N         | 82W        | 8900          |
| 6H3          | W     | Libby Lodge                      | 29         | 1.6N       | 78W        | 8900          | 6K13             | C     | Frisco                    | 18      | <b>6</b> S | 78W        | 9300          |
| 6H12         | W     | Fox Park                         | 23         | 13N        | 78W        | 9200          | 5K16             | C     | Snake River               | 9       | 58         | 76W        | 9700          |
| UILLE        | "     | TON TONK                         | ω±         | 1011       | , 011      | 0200          | 6K14             | C     | Summit Ranch              | 8       | 4\$        | 78W        | 10000         |
|              |       | Sweetwater                       |            |            |            |               | 5J 24            | C     | Milner Pass               | 7       | 5N         | 75W        | 10100         |
| 8G3          | W     | South Pass                       | 13         | 30N        | 101W       | 9000          | 6K15             | С     | Vail Pass                 | 28      | 5S         | 79W        | 10000         |
| 8G4          | W     | Grannier Meadows                 | 19         | 30N        | 100W       | 9000          | 6K18             | C     | Kokemo                    | 23      | <b>7</b> S | 79W        | 10600         |
| 9G 6         | W     | Larsen Creek                     | 12         | 30N        | 103W       | 9000          | 6K19             | C     | Pando                     | 10      | <b>7</b> S | WO3        | 9500          |
|              |       |                                  |            |            |            |               |                  |       |                           |         |            |            |               |
|              |       | Laramie Peaks Distr              | ict        |            |            |               |                  |       | Roaring Fork              |         |            |            |               |
| 5G1          | W     | Boxelder                         | 11         | 27N        | 74W        | 8450          | 6K4              | C     | Ind. Pass Tunnel          | 3       | 118        | 8 2W       | 10700         |
| 5G2          | W     | LaBonte                          | 31         | 30N        | 7.5W       | 9000          | 7K1              | C     | North Lost Trail          | 20      | 118        | 87W        | 9200          |
|              |       |                                  |            |            |            |               | 6K6              | С     | Nast                      | 1       | 98         | 83W        | 8700          |
|              |       | South Platte                     |            |            |            |               | 6K10             | C     | Ivanhoe                   | 12      | 98         | 82W        | 10400         |
| 5J1          | C     | Cameron Pass                     | 2          | 6N         | 76W        | 10300         | 6K12             | С     | Ruby                      | 1       | 128        | 83W        | 11500         |
| 5J2          | C     | Chambers Lake                    | 6          | 7N         | 75W        | 9000          |                  |       | Yampa                     |         |            |            |               |
| 572          | С     | Big South                        | 33         | 8N         | 75W        | 8600          | 6J1              | С     | Dry Lake                  | 26      | 7N         | 84W        | 8300          |
| 5K1          | С     | East Portal                      | 2          | 28         | 74W        | 9400          | 6J4              | Č     | Elk River                 | 21      | 5N         | 8 2W       | 9300          |
| 6Kl          | C     | Hoosier Pass                     | 13         | 88         | 78W        | 11400         | 6J8              | C     | Routt Line                | 13      | 5N         | 93W        | 9700          |
| 5K2          | С     | Fairpley                         | 33         | 98         | 77W        | 10000         | 639              | C     | Rabbit Ears               | 30      | 5N         | 83W        | 9550          |
| 53 5         | С     | Wild Basin                       | 24<br>26   | 3N         | 74W        | 10000         | <b>6</b> J10     | c     | Yampa View                | 21      | 5N         | 84W        | 8500          |
| 5J6<br>5J8   | C     | Deadman Hill<br>University Camp  | 26         | 10N<br>1N  | 75W<br>73W | 10300         |                  |       | *                         |         |            |            |               |
| 5K5          | C     | Loveland Pass                    | 27         | 4S         | 76W        | 10600         |                  |       | White                     |         |            |            |               |
| 5311         | c     | Hour Glass Lake                  | 18         | 7N         | 73W        | 9500          | 7K2              | C     | Burro Mountain            | 15      | 2S         | 91W        | 9000          |
| 5K8          | Č     | Jefferson Creek                  | 14         | <b>7</b> S | 76W        | 10100         | <b>7</b> J1      | С     | Rio Blanco                | 28      | 1N         | 88%        | 8500          |
| 5313         | C     | Hidden Valley                    | 23         | 5N         | 75W        | 9550          |                  |       |                           |         |            |            |               |
| 5317         | C     | Deer Ridge                       | 19         | 5N         | 73W        | 9050          | 2                |       | Plateau Creek             |         |            |            |               |
| 5118         | C     | Copeland Lake                    | 21         | 3N         | 73W        | 8600          | 7K4              | C     | Mesa Lakes                | 35      | 118        | 96W        | 10000         |
| 5K10         | С     | Empire                           | 21         | 3S         | 75W        | 9650          | 7K5              | С     | Trickle Divide            | 23      | 118        | 94W        | 10000         |
| 5K11         | С     | Geneva Park                      | 18         | 6S         | 74W        | 9750          |                  |       |                           |         |            |            |               |
| 5L1          | C     | Antero                           | 1          | 138        | 77W        | 9200          |                  |       | Gunnison                  | 0.0     | 150        | 0.481      | 0000          |
| 5J 2O        | C     | Red Feather                      | 26         | 10N        | 74N        | 9000          | 6L1              | C     | Crested Butte             | 22      | 138        | 8 GW       | 9000          |
| 5K12         | С     | Moffatt                          | 2          | 28         | 74W        | 9400          | 6L2              | С     | Park Cono                 | 19      | 145        | 82W        | 9 <b>7</b> 00 |
| 5J21         | С     | Ward                             | 1          | 1N         | 73W        | 9500          | 7K3              | C     | Alexander Lake            | 2       | 128        | 2.5₩       |               |
| 5K13         | С     | Berthoud Falls                   | 16         | <b>3</b> S | 75W        | 10500         | 7L1              | C     | Snowshoe Mesa             | 14      | 13S        | 85%        | 7500          |
| 5J22         | С     | Longs Peak                       | 32         | 4N         | 73W        | 10500         | 7M6              | С     | Ironton Park              | 29      | 43N        | 7W         | 9800          |
| 5323         | С     | Lost Lake                        | 32         | 6N         | 75W        | 9300          | 7K6              | С     | Park Reservoir            | 34      | 113        | 94W<br>6E  | 9500          |
| 5K17         | С     | Clear Creek                      | 27         | 4S         | 76W        | 11200         | 6L3              | С     | Porphyry Creek            | 19      | 49N        |            | 10800         |
| 5J25         |       | Boulder Falls                    | 26         | lN         | 73W        | 10000         | 7K7<br>7M8       | C     | Kannah Creek<br>Lake City | 5<br>13 | 12S<br>43N | 9 5W<br>4W | 10700         |
| P3 56        | 0     | Two Mile                         | 22         | 5N         | 74W        | 10500         | 7K8              | C     | McClure Pass              | 1       | 113        | 8.914      | 9500          |
| 5H1          | W     | Pole Mountain                    | <b>3</b> 5 | 15N        | 7 2W       | 8700          | 71.60<br>71.61.5 |       | Red Mountain              | 13      | 42N        | 8W         | 11000         |
|              |       | the same of                      |            |            |            |               | turi c           |       | TOTA DIONITARE            | a. v/   | 4 60.17    | Ç.         | 22000         |
| 270          | ~     | Arkansas                         | 0.2        | 00         | D.COTT     | 10000         |                  |       | San Juan                  |         |            |            |               |
| 6K2<br>6K3   | C     | Tennessee Pass                   | 21         | 88         | 80W        | 10200         | 6M3              | C     | Upper San Juan            | 10      | 37N        | 1E         | 10000         |
| 5M1          | C     | Twin Lakes Tunnel<br>LaVeta Pass | 22<br>22   | 11S<br>28S | 82W<br>70W | 10500<br>9300 | 7M4 '            | C     | Silverton                 | 10      | 47 N       | THY        | 9400          |
| 6K7          | c     | Four Mile Park                   | 25<br>25   | 118        | 81W        | 9700          | 7M5              | C     | Cascade                   | 12      | 39N        | 9%         | 8550          |
| 5M2          | č     | Blue Lakes                       | 30         | 315        | 69W        | 10000         | 7M7              | С     | Granite Peaks             | 23      | 37N        | EW         | 7950          |
| 6LA          | Č     | Monarch Pass                     | 16         | 49N        | 6E         | 10500         | 7M10             | C     | La Plate                  | 4       | 36N        | 118        | 97.00         |
| 6L5          | C     | Saint Elmo                       | 31         | 158        | 80W        | 10600         | 7M11             | C     | Spud Mountain             | 32      | 40N        | 8₩         | 10700         |
| 6K11         |       | Timberline                       | 8          | 98         | 81W        | 11100         | 7M12             |       | Molas Lake                | 7       | 40N        | 76         | 10500         |
| 6816         |       | Cooper Hill                      | 2          | 8\$        | 80W        | 10600         | 7M13             | C     | Howardville               | 15      | 41N        | 7/9        | 9800          |
| 6K17         |       | Hest Fork                        | 9          | 88         | 79W        | 10700         | 7M14             | С     | Mineral Creek             | 35      | 42N        | 8₩         | 10300         |
| 5L2          | C     | Westoliffe                       | 19         | SSS        | 73W        | 9000          |                  |       |                           |         |            |            |               |
|              |       |                                  |            |            |            |               |                  |       |                           |         |            |            |               |

## LIST AND LOCATION OF SNOW COURSES (CONTINUED)

|             |          |                       | LIST  | AND          | LOCATI | ON OF SHOW   | COURSES (    | CONTINU | ED)                         |         |            |          |              |
|-------------|----------|-----------------------|-------|--------------|--------|--------------|--------------|---------|-----------------------------|---------|------------|----------|--------------|
| No.         | Stat     | o Yomo                | Sec.  | Two          | Ren.   | Elev.        | Ho.          | State   | Wamo                        | 8       |            | D        |              |
|             |          | 2000                  |       | - whe        | WP0.   | 77040        | по           | 20200   | Name                        | Seo.    | 1.mb.      | Kge.     | Elev.        |
|             |          | Dolores               |       |              |        |              |              |         | Gila (Arizona)              | Conti   | nued       |          |              |
| 710         | C        | Rico                  | 11    | 39H          | 11W    | 8700         | 852          | NM      | Inman                       | 6       | 118        | 10W      | 7800         |
| 710         | C        | Telluride             | 6     | 42N          | SW     | 8600         | 9\$4         | A       | Nutrieso                    | 23      | 6N         | 30E      | 8500         |
| 7163        | C        | Lizzard Head          | 24    | 41N          | 100    | 10300        | 956          | A       | Beaver Head                 | 13      | 4N         | 30E      | 8000         |
| 7¥9         | C        | Trout Lake            | 8     | 41N          | SW     | 9700         | 9S 7         | A       | Coronado Trail              | 26      | 5N         | 30E      | 8000         |
|             |          |                       |       |              |        |              | 1072         | A       | Rese Canyon                 | 15      | 125        | 16E      | 7300         |
|             |          | Green                 |       |              |        |              | 1071         | A       | Bear Wallow                 | 6       | 128        | 16E      | 8100         |
| 9G1         | W        | Mulligan Park         | 17    | 35N          | 108%   | 8900         |              |         |                             |         |            |          |              |
| 9G5         | W        | Dutch Jee             | 35    | 31N          | 104W   | 8700         |              |         | Salt (Arizona)              | )       |            |          |              |
| 10F15       | W        | Kendall R.S.          | 25    | 38N          | 110W   | 7900         | 9R2          | A       | MoNary                      | 14      | 8N         | 23E      | 7200         |
| 10F16       | W        | Loomis Park           | 14    | 37N          | 111W   | 8500         | 10R6         | A       | Forest Dale                 | 2       | 9N         | 212      | 600          |
| 1069        | W        | Snyder Basin R.S.     | 15    | 29N          | 114W   | 8040         | 9R1          | A       | Milk Ranch                  | 28      | 8N         | 23E      | 700          |
| 10G10       | W        | Piney LaBarge         | 19    | 29N          | 114W   | 8820         | 9S <b>5</b>  | A       | Pacheto                     | Maver   | ick Ar     | izona    | 7800         |
|             |          |                       |       |              |        |              | 9R5          | A       | Fort Apaohe                 | 18      | 7N         | 27E      | 900          |
|             |          | UTAH                  |       |              |        |              | 981          | A       | Baldy                       | 28      | 7N         | 27E      | 9000         |
|             | _        | Upper Green River     |       |              |        |              | 952          | A       | Maverick Fork               | 13      | 6N         | 275      | 9050         |
| 1074        | <u> </u> | Hewinta Ranger Statie |       | 3N           | 13E    | 9500         | 1081         | A       | Workman Creek               | 33      | 6N         | 14E      | 5860         |
| 1011        | Ū        | Hole-in-the-Rock      | 18    | 2N           | 15E    | 9150         |              |         |                             |         |            |          |              |
| 10/2        | U        | Middle Beaver Creek   | 31    | 3N           | 16E    | 8550         | 1000         |         | Little Colored              |         |            |          | -1           |
| 103         | Ū        | Hole-in-the-Rock R.S. |       | 3N           | 16E    | 8300         | 10P2<br>11R4 | A<br>A  | Fort Valley                 | 22      | 22N        | 6E       | 7350         |
| <b>9</b> J1 | U        | Kings Cabin (Upper)   | 22    | 18           | 21E    | 8800         |              |         | Mormon Lake                 | 13      | 18N        | 28<br>20 | 7350         |
| 972         | U        | Kings Cabin (Lower)   | 23426 | 13           | 21E    | 8600         | 11R3         | A       | Mormon Mountain             | 14      | 18N        | 8E       | 7500         |
|             |          | Duchesne River        |       |              |        |              |              |         | Verde (Arizona              | 1       |            |          |              |
| 10/8        | σ        | Trail Lake            | 5     | 2S           | 98     | 9800         | 12R1         | A       | Camp Wood                   | 3       | Jev        | Que      | ERAA         |
| 11725       | U        | Daniels-Strawberry S. | _     | 2S           | 12W    | 8000         | 11P3         | A       | Antelope Park               | 29      | 16N<br>19N | 6W<br>SE | 5700<br>7300 |
| 1138        | Ū        |                       | 54-35 |              | 6E     | 8000         | 11R2         | A       | Casner Park                 | 19      | 18N        | 28       | 6930         |
| 1137        | Ü        | East Portal           | 36    | 78           | 6E     | 7560         | 11R1         | A       | Munds Park                  | 7       | 18N        | 7E       | 6500         |
| 10K1        | Ū        | Indian Canyon         | 2     | 115          | 102    | 9100         | 20112        | 44      | mulli 1 al a                | - 1     | TOM        | 15       | 0000         |
| 1079        | Ū        | Brown Duck Lake       | 5     | 211          | 6W     | 10300        |              |         | Williams (Ariz              | lone    |            |          |              |
| 10710       | Ū        | Lakefork Mountain     | 245   | 2N           | SW     | 10500        | 12R2         | A       | Iron Springs                | 22      | 14N        | 3W       | 6000         |
| 10711       | Ū        | Lakefork Mountain #2  | 17    | 2N           | 491    | 8900         | 13P1         | A       | Willow Ranch                | 16      | 21N        | 11W      | 5000         |
| 10/12       | Ū        | Lakefork Mountain #5  | 29    | 2N           | 401    | 8100         |              |         | Lower Colorado              | 7       |            |          | 0000         |
| NS          | Ü        | Paradise Park         | 7     | 3N           | 12     | 10500        | 12P1         | A       | Chalendar                   | 27      | 22N        | 3E       | 7100         |
| 9J5         | Ü        | Mosby Mountain (lewer |       | 211          | 1E     | 9500         | 11P1         | A       | Grand Canyon                | 21      | 30N        | 4E       | 7500         |
|             |          |                       | , •   | -            |        | 0000         | 12N1         | A       | Bright Angel                | 34      | 33N        | 48       | 8400         |
|             |          | Price River           |       |              |        |              |              |         |                             | olorade |            | _        |              |
| 11K5        | σ        | Huntington-Horseshee  | 12    | 148          | 5E     | 9800         | 6M1          | C       | Wolf Creek Pass             | 4       | 37N        | 2E       | 10000        |
| 11K4        | σ        | Gooseberry Reservoir  |       | 138          | 5E     | 8700         | 6M2          | C       | Upper Rio Grande            | 13      | 40N        | 4W       | 9350         |
| 11K8        | σ        |                       | 13-28 | 138          | 538    | 8800         | 6M4          | C       | Silver Lakes                | 15      | 36N        | 5E       | 9600         |
|             |          | Cottonwood Cr.        |       |              |        |              | 6M5          | C       | River Springs               | 25      | 33N        | 63       | 9300         |
| 11K6        | σ        | Mud Creek             | 4     | 148          | 7E     | 8250         | 6M6          | C       | Summitville                 | 30      | 37N        | 4E       | 11500        |
| 11K7        | σ        | Staley Ranch          | 32    | 123          | 72     | 7600         | 6M7          | C       | Cumbres Pass                | 17      | 32N        | 5E       | 10000        |
| 11K8        | ប        | Dry Valley Divide     | 20    | 128          | 8E     | 7800         | 6M8          | C       | Santa Maria                 | 8       | 41N        | 2W       | 9700         |
|             |          |                       |       |              |        |              | 5M3          | C       | Culebra 37                  | .2N     | 105.2W     |          | 10000        |
|             |          | San Rafael River      |       |              |        |              | 5 <b>M4</b>  | C       | Fort Garland                | 13      | .29N       | 72W      | 8200         |
| 11K9        | σ        | Seeley Creek RS #2    | 25    | 178          | 48     | 10000        | 6M9          | C       | Platoro                     | 22      | 36N        | 4W       | 9950         |
|             |          |                       |       |              |        |              | emio         | C       | West Conejos                | 25      | 35N        | 4E       | 9450         |
|             |          | Muddy River           |       |              |        |              | 6M11         | C       | LaManga                     | 11      | 33N        | 58       | 10000        |
| 11K14       | σ        | Black Fork            | 84    | 208          | 4E     | 9200         | 6M12         | C       | Pyramid                     | 26      | 41N        | 5W       | 10300        |
| 11K15       | U        | Dills Camp            | 27    | 20S          | 4E     | 9200         | 6M13         | C       | Spring Creek Pass           | 2       | 42N        | 3W       | 10900        |
|             |          |                       |       |              |        |              | 6M14         | C       | Pool Table Mt.              | 19      | 41N        | 2E       | 10000        |
|             | -        | Fremont River         |       |              |        |              | 6M15         | C       | Lake Humphrey               | 32      | 40N        | 1E       | 9300         |
| 1113        | U        | Fish Lake             | 35    | 26S          | 1E     | 8700         | 6L6          | C       | Cochetopa Pass              | 12      | 45N        | 3E       | 10000        |
| 1114        | U<br>U   | Black's Flat-U.M.Cr.  | 33    | 24S<br>30S   | 3E     | 9250         | 6M16<br>6M17 | C       | Porcupine Wolf Creek Summit | 2<br>6  | 41N<br>37N | 3W<br>2E | 10400        |
| 11L5        | U        | Donkey Reservoir      |       | 303          | 4E     | 9800         | CMI          | 0       | Rio Grande (Ne              | -       |            | 613      | 11000        |
|             |          | Escalante River       |       |              |        |              | 5N1          | NM      | Red River                   | 29      | 28N        | 15E      | 9500         |
| 11111       | σ        | Widtsoe-Escalante Sum | 20    | 343          | 1W     | 9500         | 5N2          | NM      | Taos Canyon                 | 10      | 25N        | 15E      | 9000         |
| 11112       | ซ        | Widtsoe-Escalante #2  | 22    | 34S          | 1W     | 9500         | 5P1          | NM      | Aspen Grove                 | 12      | 18N        | 10E      | 9100         |
| TIME        | U        | "Id Cade-Badalance #2 | ~~    | 030          | Tu     | 3000         | 5N3          | NM      | Hematite Park               | 8       | 28N        | 15E      | 9500         |
|             |          | Virgin River          |       |              |        |              | 5N4          | NM      | Tres Rites                  | 23      | 22N        | 13E      | 9000         |
| 1216        | σ        | Long Valley Jct       | 22    | <b>38</b> S  | 6W     | <b>7</b> 500 | 6N1          | NM      | Payrole                     | 16      | 28N        | 7E       | 9700         |
| 12M5        | U        | Harris Flat R.S.      | 24    | 38S          | 7W     | 7700         | 6N2          | NM      |                             | 6.9N    | 106 . 7    |          | 7750         |
| 12M4        | Ū        | Duck Creek R.S.       | 11    | <b>38</b> \$ | 8W     | 8500         | 6N3          | NM      |                             | 6.9X    | 106.7      |          | 8500         |
| 12M2        | Ū        | Midway Valley         | 26    | 37S          | 9W     | 9400         | 5N 5         | NM      | Cordova                     | 22      |            | 13E      | 10100        |
| 12M1        | U        | Cedar Breaks          | 2     | 37S          | 9W     | 10390        | 5P2          | NM      | Panchuela                   | 27      | 19N        | 12E      | 8300         |
| 12M3        | ΰ        | Webster Flat          | 20    | <b>37</b> S  | 9W     | 9200         | 5P3          | NM      | Big Tesuque                 | 17      | . 18N      | 11E      | 10000        |
| 13M1        | Ū        | Pine Valley           | 3     | 40S          | 15W    | 9150         | 5P4          | NM      | Elk Cabin                   | 8       | 18N        | 11E      | 8250         |
|             |          | Lower Colorado Ri     | -     |              |        | ern Utah)    | 5P5          | NM      | Rio En Medio                | 8       | 18N        | 11E      | 10400        |
| 9L1         | σ        | LaSal Mountain        | 5     | 275          | 24E    | 8800         | 6P1          | NM      | Quemazon                    | 34      | 20N        | 5E       | 9300         |
| 9M1         | ΰ        | Buckboard Flat        | 36    | 33S          | 22E    | 9000         | 6N4          | NM      | Bateman                     | 5       | 26N        | 6E       | 9300         |
|             |          | Gila (Arizona)        |       |              |        |              | 6P2          | NM      | Fenton Hill                 | 18      | 19N        | 3W       | 8900         |
| 781         | NM       | Frisco Divide         | 21    | <b>6</b> S   | 20W    | 8000         |              |         |                             |         |            |          |              |
| 7S2         | NM       | State Line            | 5     | <b>8</b> S   | 21W    | 8000         |              |         |                             |         |            |          |              |
| 881         | NM       | Taylor Creek          | 20    | 108          | 10W    | 7850         |              |         |                             |         |            |          |              |
|             |          |                       |       |              |        |              |              |         |                             |         |            |          |              |





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